

Proposed Institution

Institution: University of Maryland

Participation Type: Postdoc

Institution Advisor/Department: (if known)

Research

Research Proposal:

This project aims to develop novel approaches to evaluate cell count and cell health based on optofluidic kinetic cytometry and complementary automation, microscopy, and advanced cell analysis techniques. This approach is directly applicable to the development and characterization of cell-based therapies and will advance measurement capabilities critical for the success of these novel therapeutics. In this project, we will establish primary cell counting measurements, based on genome enumeration to serve as ground truth cell counts for validation of novel counting technologies such as the kinetic cytometer. We will also validate cell counts via functional analysis to verify the presence of viable cells. This is a multi-disciplinary project which relies on the close collaboration of mathematicians, physicists, and bioengineers.

Research Title: Development of primary approaches to evaluate cell count and cell health

Salary/Stipend offer: \$68K/Year (plus benefits and optional travel and relocation stipend)

Primary location: NIST Gaithersburg

Period of performance

Anticipated start date: March 2021

Anticipated end date: March 2023

Total hours per week: 40h/week

Note: the anticipated start date does not guarantee that PREP participants will begin on that date. The PREP institution has a right to propose a more reasonable start date based on the request.

NIST Sponsor

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